Discussion on "XADS/Eurisol" by Guillaume Olry

Olry was asked about the strategy when optimizing spoke shapes. He clarified that while the spoke of the resonator built was varying (circular base and race-track at the aperture), the optimization curves that compared circular vs. elliptical vs. racetrack spokes were for homogeneous spoke cross-sections.

The nominal thickness of the spokes was 1/3 of the total active length of the cavity. Delayen and Shepard pointed out that this is contradictory to their findings that peak fields are lowest, if the spoke is approximately? of the total active cavity length. The reason might be that spoke variations for each spoke type did not take into account the change in the structure β , defined by the gap-center to gap-center distance that varied during the optimization.

Olry was asked about the reason for a 359 MHz resonant frequency of their cavity. He explained that the target frequency had been 352 MHz. Due to an error in the racetrack specification the frequency came in higher, which was not an issue to demonstrate this prototype resonator.